

EXHIBIT A
ARROYO HONDO CULVERT MODIFICATION – Santa Barbara Land Trust
STATEMENT OF WORK

Under direction of the Department of Fish and Game, and under the following conditions and terms, the Grantee will:

1. The goal of this project is to improve fish passage for steelhead in Arroyo Hondo Creek tributary to the Pacific Ocean in Santa Barbara County. The objective is to provide access to 6 miles of habitat, to increase spawning habitat for adult salmonids and rearing habitat for juvenile salmonids. In addition this project will enlarge the estuary by modification of the outlet channel and enhancement of the habitat value by placing structure in the re-designed estuary. Also a new resting pool will be developed upstream of the 330-ft culvert inlet.
2. Conduct work on Arroyo Hondo Creek from the creek mouth upstream approximately 0.10 miles upstream from the confluence with the Pacific Ocean. The project is located in Township 5N, Range 31W, Section 1920 & 1921 of the Gaviota 7.5 Minute U.S.G.S. Quadrangle, Latitude: 120 degrees , 9 minutes West by Longitude: 34 degrees 30 minutes North as depicted in Exhibit C, Project Location Map, which is attached and made part of this agreement by this reference.
3. Improve fish passage providing access to habitat for steelhead in Arroyo Hondo Creek by completing the following work:
 - Finalize engineered plans for the modification of the 300-ft. concrete culvert under Highway 101 including the baffles, the maintenance path, the storm drain outfall, the upstream apron modification and the upstream bank stabilization as well as finalize plans for the lagoon enhancement, which includes the modification of the 164-ft. concrete flume, scour protection for the old Highway 1 and railroad bridge footings and biotechnical slope protection. All plans must be submitted to the Grant Manager at least one month prior to project commencement. The plans will include details of construction, scaled drawings of the culvert and other components of the project as well as specifics on traffic detour, water diversion and fish relocation if necessary. Implementation cannot begin without written approval from the Grant Manager.
 - Implement plans for fish removal, water diversion and traffic detour.
 - Install 22 concrete baffles and a 6 ft. W x 2 ft. H x 307 ft. L maintenance path within the culvert.
 - Redirect the centerline storm drain on the outlet of the culvert to the west (right bank).
 - The culvert inlet will be modified by installation low flow collector walls of 12 to 18 inches high. These will be located at stations 1+80 and 1+85.
 - Remove 135 feet of the existing concrete flume, all associated fill and install at least three grouted riprap jump pools. The rock will be appropriately sized to the hydrology of the system.
 - Excavate the lagoon to a depth of 82 ft. and width of 115 ft. with a 3:1 slope. Side slopes will be treated to match original contours. Willow stakes and/or fascines will be used to ring the lagoon. Plant addition riparian species in the upland areas to establish the appropriate coastal riparian community.

- Install scour protection around the Highway 1 and railroad bridge foundations. This will entail installing a flaring extension to the east wall of the shortened flume and by installing stone revetment around the six railroad footings. The revetment will be planted with willow stakes.
 - Remove invasive species in and around the project and plant will native coastal vegetation. Any additional disturbed soils will be seeded, mulched and planted with native plants.
 - Create a resting pool upstream of the inlet. The pool will measure approximately 15 ft. L x 20 ft. W. The minimum of two rootwad structures will be installed to provide habitat and maintain the scour pool.
 - Stabilize the left and right banks upstream of the culvert by reducing the slope, rocking the toe with boulders and planting willow stakes and biodegradable fabric for erosion control.
 - If instream grade control structures are required to maintain the integrity of the stream channel, the Grantee will use large quarry rock boulders secured to each other.
4. The Grantee will not proceed with on the ground implementation until all necessary permits and consultations are secured. This includes but is not limited to:
- DFG Streambed Alteration Agreement
 - U.S. Army Corps of Engineers' 404 Permit
 - Section 7 Consultation with the National Marine Fisheries Service
 - Regional Water Quality Control Board Waste Discharge Requirements/State Water Quality Certification 401 permit
 - Local county permits
 - Encroachment permit from Cal Trans and the Southern Pacific Railroad.
5. The Grantee shall notify the Grantor's Project Manager a minimum of five working days before the project site is de-watered and the stream flow diverted. The notification will provide a reasonable time for Department personnel to supervise the implementation of the water diversion plan and oversee the safe removal and relocation of steelhead and other aquatic life from the project area. If the project requires dewatering of the site, and the relocation of salmonids, the Grantee will implement the following measures to minimize harm and mortality to endangered steelhead:
- Fish relocation and dewatering activities shall only occur between June 15 and October 31 of each year.
 - The Grantee shall minimize the amount of wetted stream channel dewatered at each individual project site to the fullest extent possible.
 - All electrofishing shall be performed by a qualified fisheries biologist and conducted according to the National Marine Fisheries Service, *Guidelines for Electrofishing Waters Containing Salmonids Listed Under the Endangered Species Act*, June 2000.
 - The Grantee will provide fish relocation data to the Grantor's Project Manager on a form provided by the Department of Fish and Game.
 - Additional measures to minimize injury and mortality of salmonids during fish relocation and dewatering activities shall be implemented as described in Part IX, pages 52 and 53 of the *California Salmonid Stream Habitat Restoration Manual*.

6. The culvert design and installation will meet flow carrying capacity required for a 100-year flood event as identified by specifications determined by NOAA Fisheries and the California Department of Fish and Game, for adult and juvenile salmonid fish passage.
7. The project will follow the National Marine Fisheries Service (NMFS 2001) Guidelines for Salmonid Passage at Stream Crossings and DFG criteria for fish passage as described in the Third Edition, Volume II, Part IX, February 2003, of the *California Salmonid Stream Habitat Restoration Manual*. Culvert replacement or modification designs shall be visually reviewed and authorized by NOAA Fisheries (or CDFG) engineers prior to commencement of work.
8. All habitat improvements will be in accordance with techniques described in the Third Edition, January 1998, of the *California Salmonid Stream Habitat Restoration Manual*.
9. Work in flowing streams is restricted to June 15 through October 31. Actual project start and end dates, within this timeframe, are at the discretion of the Department of Fish and Game. Planting of tree seedlings will take place after December 1 or when sufficient rainfall has occurred to insure the best chance of survival of the seedlings. The standard for success is 80% survival of plantings or 80% ground cover for broadcast planting of seed, after a period of three years.
10. The Grantee will maintain the new crossing, inspect the crossing in a timely manner, and remove debris as necessary during the storm season.
11. Submit a progress report to the Grantor's Project Manager at least once every three months. In addition, if work has been done under the contract during the three-month period, submit an invoice and a record of in-kind funds or services provided during the invoice period.
12. Upon completion of the project, the Grantee shall submit two hard copies of a final written report and one electronic, *Microsoft Word* compatible, copy on 3.5 inch floppy disk(s) or CD. If the project is not completed in the current year, the Grantee will submit a summary of the completed portion no later than December 31 and again each year until completed. The report shall include, but not necessarily be limited to the following information: (1) Grant number, (2) project name; (3) geographic area (e.g., watershed name); (4) location of work – show project location using U.S.G.S. 7.5 minute topographical map or appropriately scaled topographical map; (5) geospatial reference/location (lat/long is preferred – defined as point, line, or polygon); (6) project start and end dates and the number of person hours expended; (7) total of each fund source, by line item, expended to complete the project, breaking down Grant dollars, by line item, and any other funding, including type of match (cash or in-kind service); (8) expected benefits to anadromous salmonids from the project; (9) labeled before and after photographs of any restoration activities and techniques; (10) specific project access using public and private roads and trails, with landowner name and address; (11) complete as-built project description; and (12) report measurable metrics for the project by responding to the restoration project metrics listed below.

Habitat Protection and Restoration Projects– Reporting Metrics (HB) (Report N/A to those that do not apply)

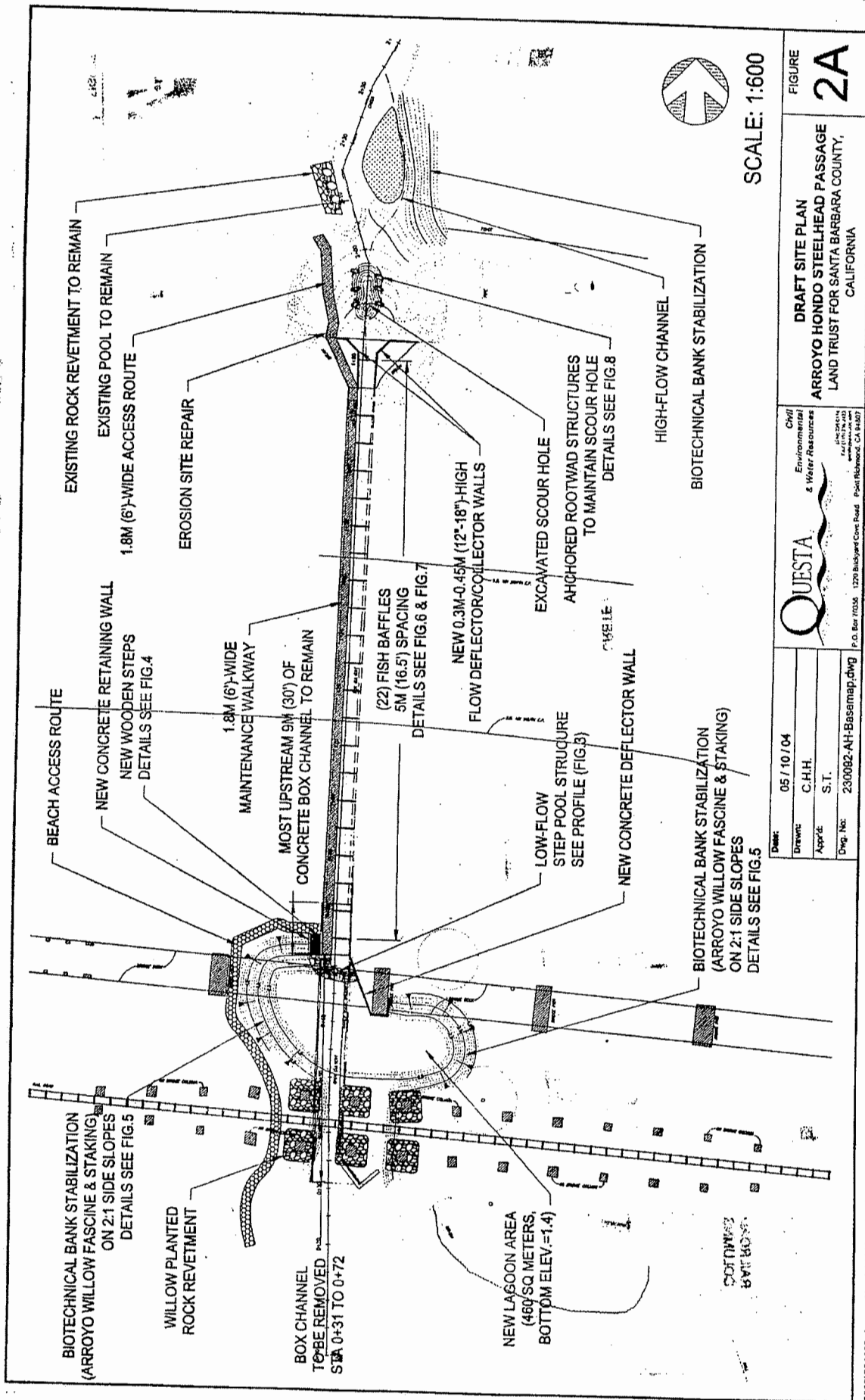
Habitat Projects: (all)

- Identify the watershed/sub-basin plan or assessment in which the project is identified as a priority.
- Name the priority habitat limiting factors identified in that plan that are addressed by the project
- Type of monitoring included in the project
 - Design spec achieved
 - Fish movement/abundance
- Number of stream miles treated/affected by the project within the project boundaries.

Fish Passage Improvement Projects (HB):

- Number of blockages removed or made passable.
- Number of miles made accessible to salmonids.

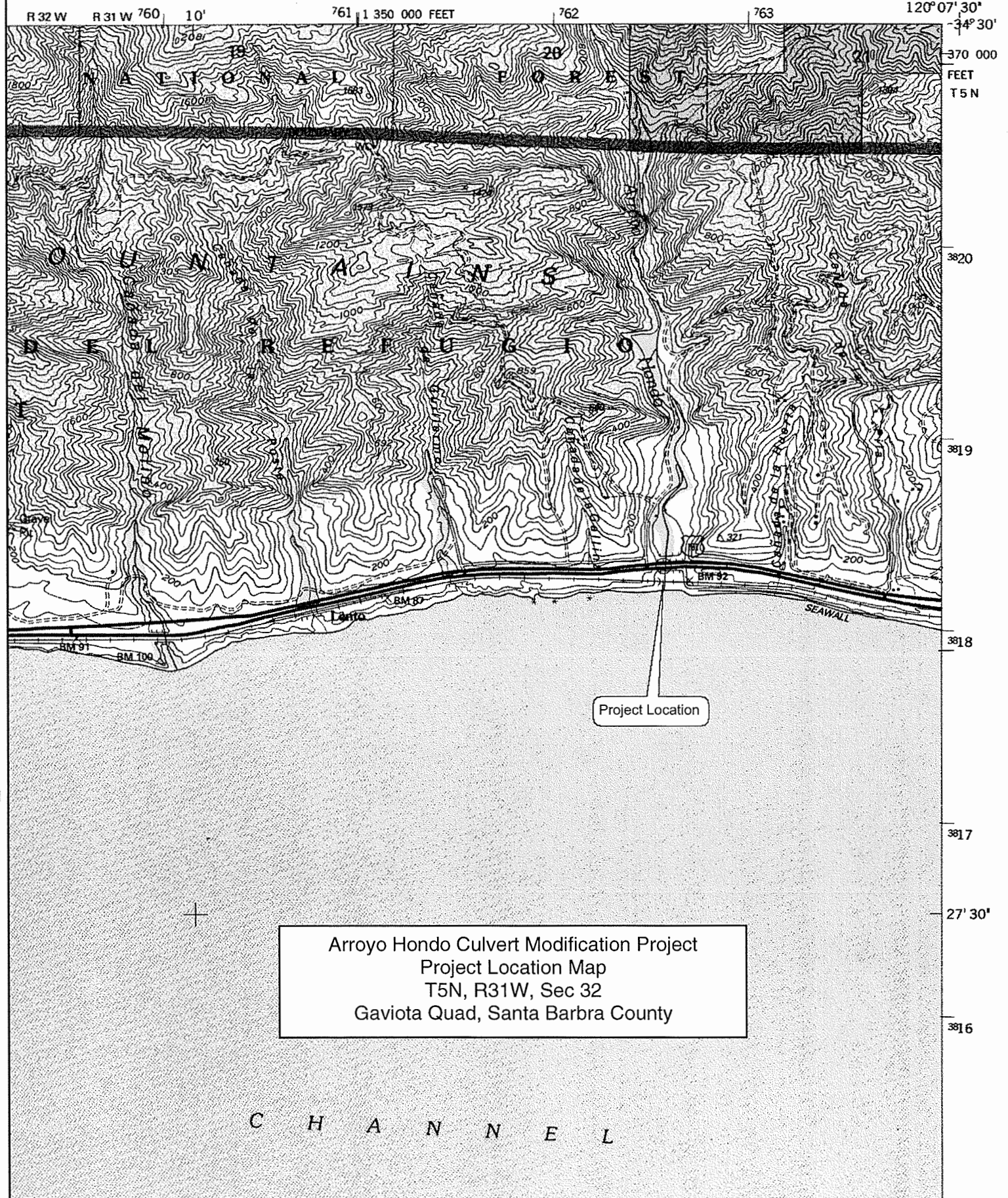
13. The Grantee will acknowledge the participation of the Department of Fish and Game, Fisheries Restoration Grant funds on any signs, flyers, or other types of written communication or notice to advertise or explain the Arroyo Hondo Culvert Modification Project.



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GAVIOTA QUADRANGLE
CALIFORNIA-SANTA BARBARA CO.
7.5-MINUTE SERIES (TOPOGRAPHIC)



California Department of Fish and Game

Natural Diversity Database

Selected Elements by Common Name

Possible species within the Gaviota and surrounding quads for:

Arroyo Hondo culvert Modification Project

T5N, R31W, Sec 32; Santa Barbra County

Common Name/Scientific Name	Element Code	Federal Status	State Status	GRank	SRank	CDFG or CNPS/R-E-D
1 American badger <i>Taxidea taxus</i>	AMAJF04010			G5	S4	SC
2 California red-legged frog <i>Rana aurora draytonii</i>	AAABH01022	Threatened		G4T2T3	S2S3	SC
3 Coast Range newt <i>Taricha torosa torosa</i>	AAAAF02032			G5T4	S4	SC
4 Cooper's hawk <i>Accipiter cooperii</i>	ABNKC12040			G5	S3	SC
5 Davidson's saltscale <i>Atriplex serenana</i> var. <i>davidsonii</i>	PDCHE041T1			G5T2?	S2?	1B/3-2-2
6 Gaviota tarplant <i>Deinandra increscens</i> ssp. <i>villosa</i>	PDAST4R0U3	Endangered	Endangered	G4G5T1	S1.1	1B/3-3-3
7 La Purisima manzanita <i>Arctostaphylos purissima</i>	PDERI041A0			G2?	S2?	1B/2-3-3
8 Lompoc yerba santa <i>Eriodictyon capitatum</i>	PDHYD04040	Endangered	Rare	G2	S2.2	1B/3-2-3
9 Refugio manzanita <i>Arctostaphylos refugioensis</i>	PDERI041B0			G2	S2?	1B/2-2-3
10 San Diego desert woodrat <i>Neotoma lepida intermedia</i>	AMAFF08041			G5T3?	S3?	SC
11 Santa Ynez false lupine <i>Thermopsis macrophylla</i>	PDFAB3Z0E0		Rare	G1	S1.3	1B/3-1-3
12 Sonoran maiden fern <i>Thelypteris puberula</i> var. <i>sonorensis</i>	PPTHE05192			G5T3	S2.2?	2/2-2-1
13 Southern California Steelhead Stream	CARE2310CA			G?	S?	
14 Southern Coast Live Oak Riparian Forest	CTT61310CA			G4	S4	
15 Southern Cottonwood Willow Riparian Forest	CTT61330CA			G3	S3.2	
16 Southern Vernal Pool	CTT44300CA			G?	S?	
17 Southern Willow Scrub	CTT63320CA			G3	S2.1	
18 Valley Needlegrass Grassland	CTT42110CA			G1	S3.1	
19 black-flowered figwort <i>Scrophularia atrata</i>	PDSCR1S010			G2	S2.2	1B/2-2-3
20 late-flowered mariposa lily <i>Calochortus weedii</i> var. <i>vestus</i>	PMLIL0D1J2			G3?T2	S2.2	1B/2-2-3
21 mesa horkelia <i>Horkelia cuneata</i> ssp. <i>puberula</i>	PDROS0W045			G4T2	S2.1	1B/2-3-3
22 monarch butterfly <i>Danaus plexippus</i>	IILEPP2010			G5	S3	
23 rayless ragwort <i>Senecio aphanactis</i>	PDAST8H060			G3?	S1.2	2/3-2-1
24 seaside bird's-beak <i>Cordylanthus rigidus</i> ssp. <i>littoralis</i>	PDSCR0J0P2		Endangered	G5T1	S1.1	1B/2-3-3
25 southern California rufous-crowned sparrow <i>Aimophila ruficeps canescens</i>	ABPBX91091			G5T2T4	S2S3	SC

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26 southern steelhead - southern California esu <i>Oncorhynchus mykiss irideus</i>	AFCHA0209J	Endangered		G5T2	S2	SC
27 southwestern pond turtle <i>Emys (=Clemmys) marmorata pallida</i>	ARAAD02032			G3G4T2T3 Q	S2	SC
28 southwestern willow flycatcher <i>Empidonax traillii extimus</i>	ABPAE33043	Endangered	Endangered	G5T1T2	S1	
29 tidewater goby <i>Eucyclogobius newberryi</i>	AFCQN04010	Endangered		G3	S2S3	SC
30 two-striped garter snake <i>Thamnophis hammondi</i>	ARADB36160			G3	S2	SC
31 willow flycatcher <i>Empidonax traillii</i>	ABPAE33040		Endangered	G5	S1S2	